

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of SUGAWARA, et al.

Serial No. Not Yet Assigned

Filing Date Herewith

Title BLACK CERAMIC SINTER WITH LOW THERMAL EXPANSION  
AND HIGH SPECIFIC RIGIDITY AND PROCESS FOR  
PRODUCING THE SAME

[11728/4]

#4  
Pre Amended  
5-8-02

PRELIMINARY AMENDMENT

Please amend the above-identified application as follows:

In the title:

*a* ' --(Amended) BLACK CERAMIC SINTER WITH LOW THERMAL EXPANSION AND  
HIGH SPECIFIC RIGIDITY AND PROCESS FOR PRODUCING THE SAME -

In the Claims:Please cancel claims ~~4-9~~, ~~11-13~~, and 15 without prejudice.

Please add the following new claims:

- a*<sup>2</sup>
16. (New) A black low thermal expansion high specific rigidity ceramic sintered body according to claim 1, wherein the total reflectivity of the sintered body is not more than 17% at a wavelength of light in the range of 200 - 950 nm.
  17. (New) A black low thermal expansion high specific rigidity ceramic sintered body according to claim 2, wherein the total reflectivity of the sintered body is not more than 17% at a wavelength of light in the range of 200 - 950 nm.
  18. (New) A black low thermal expansion high specific rigidity ceramic sintered body according to claim 1, wherein the apparent porosity of the sintered body is not more than 2%.
  19. (New) A black low thermal expansion high specific rigidity ceramic sintered body according to claim 2, wherein the apparent porosity of the sintered body is not more than 2%.
  20. (New) A black low thermal expansion high specific rigidity ceramic sintered body according to claim 1, wherein not less than 80 vol. % of the crystal phase of the sintered body is a crystal phase of cordierite.
  21. (New) A black low thermal expansion high specific rigidity ceramic sintered body according to claim 2, wherein not less than 80 vol. % of the crystal phase of the sintered body is a crystal phase of cordierite.
  22. (New) A black low thermal expansion high specific rigidity ceramic sintered body according to claim 1, wherein the thermal expansion coefficient is not more than  $0.3 \times 10^{-6}/^{\circ}\text{C}$  in absolute value at room temperature.